

REMARKS

This patent application presently includes Claims 1-19, 11 of which claims 1-17 stand rejected and claims 18 and 19 are newly added. The rejected claims are amended to define the applicants' invention more clearly, and all rejections are respectfully traversed.

Claims 1-17 were rejected as obvious over Steinwand or Reznik in view of GB 1,004,522 and GB Patent No. 1,228,175 and Hsieh et al. This rejection is respectfully traversed. None of these references, nor any combination thereof renders the present claims obvious.

Claims 1 and 2 were amended at the first line to recite that the process is directed to the production of soft dried fruit, as set forth in the disclosure at Page 8, Lines 16-19. In addition, both claims were amended at Step B to make it clear that the disrupting or subjecting step is a mechanical or physical process which causes cracks in the surface of the fruit while maintaining its integrity or its essential structure and appearance. Both claims also recite that the process of the disrupting or subjecting steps is free of any steps which are not physical or mechanical. Support for these amendments is found in the application at Page 5, Lines 11-14 and Lines 16-19.

Until now, the examiner has apparently agreed that the claims could distinguish over Steinwand, but has asserted that the claims do not *exclude* the sodium hydroxide step. As set forth in the last amendment, the applicants do not agree with the examiner's position and have in fact shown the contrary. However, in order to eliminate this as an issue, Claims 1 and 2 have been amended to recite that the

disrupting or subjecting step is a mechanical or physical process which is free of any steps that are not physical or mechanical. Accordingly, there can be no doubt that the use of hydroxide is now excluded from the steps of the claim. Moreover, the recited steps are defined as producing cracks on the surface of the fruit while maintaining its integrity or its essential structure and appearance. Since the disrupting and subjecting steps are the only ones which affect the structure of the fruit; the use of hydroxide to affect the structure of the fruit is clearly excluded from the claimed process.

Not only is the Steinwand hydroxide process excluded from the present claims, but that process is directly opposite to what is claimed (it teaches away). Specifically, the process involves subjecting the grapes to the hydrolizing action of a sodium hydroxide solution, which modifies them "so that the cellulose, fibrous and stretchy part of the fruit will become modified...without checking, cracking or splitting the skin (Column 1, Lines 37-42). In other words, the hydroxide process modifies the fruit internally, without modifying its external structure. The present process requires exactly the opposite, that is, cracking the exterior surface without modifying the internal structure.

Thus, Steinwand teaches away from the present invention and would under no circumstances lead one to arrive at the claimed process.

Should there be any doubt whether Steinwand would ever teach one skilled in the art that the puncturing step may be used without the hydroxide treatment, Steinwand states clearly at Column 1, Line 45 that those steps are necessary stating:

I wish to point out, however, neither the hydroxide treatment along nor the puncturing alone can accomplish this result;

both steps must be used because punctured grapes which have not been treated by the hydroxide cannot be satisfactory glazed any more than unpunctured grapes.

For all of the above reasons, Steinwand is an improper reference for an obviousness rejection with respect to the present claims and should be withdrawn.

Reznik is concerned with a process for hydrating dates so as to produce a hydrated date which is soft and tender so that it can be consumed directly (column 1 lines 35-38). The aim and result of Reznik is to increase the moisture content, that is water content, of dates by a vacuum impregnation process with water (column 2 lines 25-28). Reznik fissures the skin of dates to enable air to be drawn rapidly out of the fruit, thereby allowing ready impregnation with water (see page 2 column 3 lines 10-21). In the vacuum impregnation process water is forced into the dates in place of air which is drawn out. Expert declaration testimony of Dr Reid confirms the teachings of Reznik as a vacuum hydration process of dates concerned with a different purpose than the applicants' invention, and which achieves different results.

The Examiner characterizes claim 1, step (b) as being a rehydration step, for the purpose of applying Reznik. Applicants respectfully disagree as the purpose and nature of rehydration of Reznik is to introduce water into the dates, whereas in the applicants' invention solute is infused into fruit for the *control* of water activity, as set out at step (c) of claim 1.

At page 3, in the next to last paragraph of the Office Action the Examiner indicates that the claims of the instant invention do not exclude the vacuum impregnation of water step of Reznik. Applicants respectfully disagree. Step (c) of claim 1

specifically refers to "solute infusion into the fruit". Infusion is a very different process from vacuum impregnation as one of ordinary skill in the art would readily understand. Infusion is a gentle process as described in the specification at page 7 lines 11-17. As set out at lines 16 and 17 on page 7 of the applicants' disclosure, dehydration of fruit may occur during the infusion process, so the infusion step of the invention is clearly different from impregnation of water, which always increases water content.

It is therefore clear that the Reznik patent relates to processing dried fruit for an entirely different purpose, and it achieves a different result. The examiner has offered no explanation why those skilled in the art would ever consider using Reznik for an undisclosed purpose. "The mere fact that the prior art may be modified in the manner suggested by the examiner does not make the modification obvious unless the prior suggested the desirability of the modification." *In Re Fritch*, 23 USPQ 2d. 1780, 1783 (Fed. Cir. 1992).

A reference should be considered as a whole, and portions arguing against the teaching away from the claimed invention must be considered. *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 230 USPQ 416 (Fed. Cir. 1986). As explained above, Reznik, like Steinwand, as a whole, teaches away from the present process, and the present process is therefore not obvious over Reznik and/or Steinwand, and the claims are believed to be allowable.

In the obviousness objection the Examiner combines the teachings of Steinwand or Reznik with both of the British patents. The British patents relate to quick cooking pulses, particularly peas, which are produced from fresh mature pulses. The

problem addressed by the British patents is that mature pulses, particularly peas, are hard and slow to rehydrate and cook compared to peas which are harvested at an early stage.

Applicants submit that the rehydration of pulses, particularly peas giving rise to a product which is cooked (and quick cooking), is a different technical field from the applicants' invention, addresses different problems, and that the ordinary artisan would not look to them when treating dried fruits.

With respect to the British (Unilever) patents, Dr. Reid observed (Reid Declaration, Paragraph 7):

To those of ordinary skill in the art, the Unilever patents describe a dehydration process, which aims to increase the rate of rehydration. They would understand that the purpose of the skin rupture is to enhance moisture removal and that the purpose of the added humectant is to enhance the rate of rehydration. They would appreciate that the patent is not concerned with the properties of the dried product, only with the rapidity of drying, the rapidity of rehydration, the production of acceptable consumer properties for the rehydrated product.

There can therefore be no doubt that the British patents, too, are addressed to a different problem than the present invention and would not be looked to by those skilled in the art when considering the problem addressed by the present invention. This is supported by the above sworn testimony of a practitioner with over 20 years of skill in the field, while the examiner's use of these references and attribution of relevance thereto is based upon a mere bald assertion without the slightest support therefor in the record.

The Examiner refers at page 4 of the final Office Action to British Patent 1228175 and opines that one of ordinary skill would look at Martin 1228175. The Examiner comments at the top of page 4 of the Office Action:

Martin, 1,228,175, teaches that the pulses are freeze-dried (i.e. a dried product) to remove 5-60% moisture and then infused and can also be pricked or ruptured (col. 1, lines 250-46 and col. 1-66-90).

The freeze drying process of Martin is very different from the instantly claimed invention. The process of Martin 1228175 uses high maturity peas (page 1 line 91 through page 2 line 3) which are first frozen, then freeze-dried, sugared, air dried for 16 hours at 50°C, and subsequently cooked (see page 2, column 1 lines 5-7, and column 2 lines 1-15). The raw material of Martin 1228175 is a fresh mature pulse which applicants submit is distinct from dried fruit as used in the applicants' invention. Moreover, the applicants' invention does not freeze-dry pulses, but rather uses dried fruit. The person of ordinary skill in the art would readily understand that dried fruit having a moisture content between 5-40% or more is very different from freeze-dried peas from which 5-60% of their total moisture content is removed.

The hydroxide treatment and puncturing whole grapes carried out by Steinwand is completely foreign to the processes of the British patents, either involving fresh pulses as in GB 1004522, or fresh pulses which are subsequently freeze-dried as in GB 1228175. The object and invention of Steinwand is to prevent fresh fruit from cracking and shrinking during treatment with sugar syrup (see column 1 lines 10-15), whereas the British patents are concerned with dehydrating and shrinking fresh peas. In addition to different objectives, and different starting materials, puncturing grapes

with sodium hydroxide is absolutely necessary for Steinwand, whereas the British patents impregnate peas with a hydrophilic material without any hydroxide treatment. Thus Steinwand and the British patents teach opposite processes.

Reznik and the British patents are again completely inapposite. The vacuum hydration process of fresh dates of Reznik is very different from the dehydration steps removing water from fresh peas as in the British patents. With respect, applicants submit this is a nonsensical combination.

Hsieh lowers the water activity of dried raisins by infusing into the raisins or other dried fruits a liquid humectant, particularly glycerol. Hsieh simply tumbles dried raisins with humectant glycerol. The time consuming process of Hsieh is very different from the British patents, and Reznik or Steinwand and adds nothing to the prior art cited by the Examiner, or in any way suggests the applicants' invention.

In addition, Dr. Reid has the following observation with respect to Hsieh (Reid Declaration, Paragraph 10):

The product of the Hsieh process would be understood by those of ordinary skill in the art to be similar to that of the [preset invention], in that it is a moist, succulent dried fruit of lowered a_w , containing added humectant which provide moistness and tenderness without increasing the a_w to a level where microbiological stability is compromised. The [present invention] would be understood to differ, in that it describes a process in which the rate of incorporation of the humectant is greatly enhanced.

So, this is one instance in which the results of the present invention were sought, yet the unique steps of the claims were overlooked, and the advantages of the present invention were not gained.

Again, it is quite strange that the examiner has substituted her own, unsupported judgement for the sworn testimony of an expert. It is respectfully submitted that the examiner must treat the sworn testimony of an expert as evidence and must give it due consideration, particularly when there is no contrary evidence in the record.

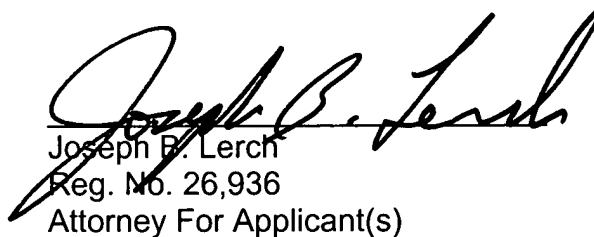
For all of the above reasons, neither Steinwand or Reznik nor the British references, nor Hsieh, or any combination thereof renders the present claims obvious, and Claims 1-17 are therefore believed to be allowable.

New Claims 18 and 19 have been added to the application to specifically recite that the fruit pieces have a water activity of 0.2 to 0.65. Support for this feature is found at Page 8, Line 19 of the disclosure, as well as an example too. There claims are believed to be allowable based upon their dependence from an allowable claim.

Applicant's attorney has made every effort to place this patent application in condition for allowance. It is therefore earnestly requested that the application, as a whole, receive favorable reconsideration and that all of the claims be allowed as presently constituted. Should there remain any unanswered questions, the examiner is

requested to call the applicant's undersigned attorney at the telephone number given below.

Respectfully submitted,


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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Deborah Ann LEWIS ET AL.

Serial No: 09/155,740

Group Art Unit: 1761

Filed: February 27, 1998

Examiner: Helen F. Pratt

Confirmation No.: 9069

For: FRUIT PRODUCTS

AMENDMENT MARK-UP SHEET FOR AMENDMENT RESPONSIVE TO
OFFICE ACTION OF MAY 1, 2002

Commissioner of Patents and Trademarks
Washington DC 20231

In the Claims:

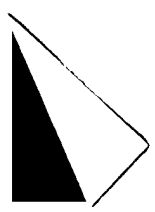
Please rewrite Claims 1 and 2 to read as follows:

1. (Amended) A process for introducing solutes into dried fruit in
order to produce soft dried fruit which comprises:

- (a) providing dried fruit of a moisture content between 5 to 40% or more;
- (b) disrupting the structure of the fruit by one of a mechanical and physical process which is free of any steps that are not physical or mechanical to produce cracks on the surface of the fruit whilst maintaining integrity thereof;
- (c) reacting the fruit with a solute solution containing one or more water activity controlling solutes for a time sufficient to allow solute infusion into the fruit, optionally removing, if necessary, any remnant infusion liquid and thereafter drying the fruit to a desired moisture content and water activity, and optionally,
- (d) treating the surface of the fruit with one or more sugars.

2. (Amended) A process for introducing solutes into dried fruit for the production of soft dried fruit which comprises:

- (a) providing dried fruit of a moisture content between 5% to 40% or more;
- (b) subjecting the dried fruit to a mechanical or physical process which is free of any steps which are not physical



or mechanical and causes cracks in the surface of the
fruit

- (c) whilst maintaining the essential structure and appearance of the fruit;
- (d) mixing the fruit with a solute solution containing one or more water activity controlling solutes for a time sufficient to allow complete infusion of solute into the fruit;
- (e) removing, if necessary, any remnant infusion liquid and thereafter drying the fruit product to a desired moisture content and water activity; and optionally,
- (f) treating the surface of the fruit with one or more sugars.